

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently Amended) An image processing apparatus comprising:
  - a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit;
  - a first control program;
  - a second control program; and
  - an application program,wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the first control program is superordinate to the hardware resource, and
  - the application program and the second control program are superordinate to the first control program,
  - the first control program includes a first API (application program interface) for receiving, with use of a predefined function, a first request relating to image processing from the second control program and a second request relating to image processing from the application program, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request, and
  - the second control program includes a second API for receiving, ~~with use of a function publicly released in advance,~~ a third request relating to image processing

from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the first control program,

wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API.

2. (Original) The image processing apparatus according to claim 1, wherein the first control program passes the received first request to the application program if the first request is directed to the application program.

3. (Original) The image processing apparatus according to claim 1, wherein the third request is data expressed in an XML.

4. (Original) The image processing apparatus according to claim 3, wherein the second control program further includes: a first converting unit for extracting predetermined information from the received XML data; and a second converting unit for converting the extracted information to the command supported by the first API.

5. (Original) The image processing apparatus according to claim 1, wherein the hardware resource includes the image forming unit, the requests relate to execution of a print job, and on receiving a request relating to execution of the

print job, the first control program controls the image forming unit to perform the print job.

6. (Original) The image processing apparatus according to claim 1, wherein the hardware resource includes the read unit, the requests relate to execution of a scan job, and on receiving a request relating to execution of the scan job, the first control program controls the read unit to perform the scan job.

7. (Currently Amended) An image processing apparatus comprising:  
a hardware resource including at least one of an image forming unit, a read unit, and a display unit;  
a first control program;  
a second control program; and  
an application program, wherein the hardware resource and the programs are arranged in a hierarchical architecture in the stated order, the first control program includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the second control program, and controls the hardware resource to perform image processing based on the received first request, and the second control program includes a second API for receiving, ~~with use of a function publicly released in advance,~~ a second request relating to image processing from an external source and a third request relating to image processing from the application program, converts, on receiving either of the second and third requests, the received request to a command supported by the first API, and passes the command as the first request to the first control program.

wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API.

8. (Original) The image processing apparatus according to claim 7, wherein the second control program passes the received second request to the application program if the second request is directed to the application program.

9. (Original) The image processing apparatus according to claim 7, wherein the second request is data expressed in an XML.

10. (Original) The image processing apparatus according to claim 9, wherein the second control program further includes: a first converting unit for extracting predetermined information from the received XML data; and a second converting unit for converting the extracted information to the command supported by the first API.

11. (Original) The image processing apparatus according to claim 7, wherein the hardware resource includes the image forming unit, the requests relate to execution of a print job, and on receiving a request relating to execution of the print job, the first control program controls the image forming unit to perform the print job.

12. (Original) The image processing apparatus according to claim 7, wherein the hardware resource includes the read unit, the requests relate to execution of a scan job, and on receiving a request relating to execution of the scan job, the first control program controls the read unit to perform the scan job.

13. (Currently Amended) An image processing apparatus, comprising:  
a hardware resource including at least one of an image forming unit, a read unit, and a display unit;  
a first control program;  
a second control program; and  
an application program, wherein the first control program is arranged between the hardware resource and the application program and the second control program is arranged superordinate to the application program in a hierarchical architecture, the first control program includes a first API for receiving, with use of a predefined function, a first request relating to image processing from the second control program and a second request relating to image processing from the application program, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request, the second control program includes a second API for receiving, ~~with use of a function publicly released in advance,~~ a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command to an appropriate one of the first control program and the application program depending on the requested processing, the command passed to the first control program serving as the first request, and on receiving the

command from the second control program, the application program passes to the first control program, a request for performing the processing based on the received command, the request passed to the first control program serving as the second request,

wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API.

14. (Original) The image processing apparatus according to claim 13, wherein the third request is data expressed in an XML.

15. (Original) The image processing apparatus according to claim 14, wherein the second control program further includes: a first converting unit for extracting predetermined information from the received XML data; and a second converting unit for converting the extracted information to the command supported by the first API.

16. (Original) The image processing apparatus according to claim 13, wherein the hardware resource includes the image forming unit, the requests relate to execution of a print job, and on receiving a request relating to execution of the print job, the first control program controls the image forming unit to perform the print job.

17. (Original) The image processing apparatus according to claim 13, wherein the hardware resource includes the read unit, the requests relate to execution of a scan job, and on receiving a request relating to execution of the scan job, the first control program controls the read unit to perform the scan job.

18. (Currently Amended) An image processing apparatus comprising:  
a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit;  
a first control program;  
a second control program; and  
one or more application programs, wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the first control program is superordinate to the hardware resource, and the one or more application programs and the second control program are superordinate to the first control program,

the first control program includes a first API (application program interface) for receiving a first request relating to image processing from the second control program and a second request relating to image processing from the one or more application programs, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request, and

the second control program includes a second API for receiving, ~~with use of a publicly released function,~~ a third request relating to image processing from an external source, converts the received third request to a command supported by the

first API, and passes the command as the first request to the first control program[[]].

wherein commands, parameters, and syntax for controlling the hardware resource are released to the public for incorporation by external users into software supported by the second API.

wherein the publicly released function is not supported by any of the one or more application programs.

19. (Previously Presented) The image processing apparatus according to claim 18, wherein the second API is an external API for controlling operations of the hardware resource according to requests received from an external device.

20. (New) The image processing apparatus according to claim 1, wherein the second API is a collection of sets of functions that are predefined by the first control program that are defined by a single collective function.

21. (New) The image processing apparatus according to claim 7, wherein the second API is a collection of sets of functions that are predefined by the first control program that are defined by a single collective function.

22. (New) The image processing apparatus according to claim 13, wherein the second API is a collection of sets of functions that are predefined by the first control program that are defined by a single collective function.



23. (New) The image processing apparatus according to claim 18, wherein the second API is a collection of sets of functions that are predefined by the first control program that are defined by a single collective function.